

DETECTING AND CORRECTING A FAILURE SEQUENCE IN A COMPUTER SYSTEM BEFORE A FAILURE OCCURS

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ABSTRACT

One embodiment of the present invention provides a system that detects a failure sequence that leads to undesirable computer system behavior and that subsequently takes a corresponding remedial action. During operation, the system receives instrumentation signals from the computer system while the computer 10 system is operating. The system then uses these instrumentation signals to determine if the computer system is in a failure sequence that is likely to lead to undesirable system behavior, such as a system crash, wherein the determination involves considering predetermined multivariate correlations between multiple instrumentation signals and a failure sequence that is likely to lead to undesirable 15 system behavior. Next, if the computer system is in a failure sequence that is likely to lead to undesirable system behavior, the system takes a remedial action.